What is claimed is:

1) A polynucleotide capable of eliciting an immunization reaction in an eukaryotic host to a peptide or polypeptide wherein:

a. said polynucleotide encodes said peptide or polypeptide;

b. said polynucleotide contains elements of a viral genome which is capable of rolling circle replication; and

c. said peptide or polypeptide is capable of expression of said peptide or polypeptide in said eukaryotic host.

2) The polynucleotide according to Claim 1, wherein said peptide or polypeptide is non-native to said eukaryotic host.

3) The polynucleotide according to Claim 1, wherein said polynucleotide contains elements of a viral genome derived from Circoviruses, Geminiviruses or Nanoviruses.

4) The polynucleotide according to Claim 3, wherein said polynucleotide comprises:

a. a Rep gene encoding a Rep protein from a virus selected from the group of genera of family *Geminiviridae*, genera of family *Circoviridae*, and genus *Nanovirus*, wherein said Rep gene is capable of being expressed in said eukaryotic host; and

b. sequences that are *cis* on the polynucleotide such that the Rep protein can bring about rolling circle replication of the polynucleotide.

5) The polynucleotide according to Claim 4, wherein said first virus cannot replicate in said eukaryotic host.

6) The polynucleotide according to Claim 4, wherein said Rep gene is operatively linked 5' to a promoter.

7) The polynucleotide according to Claim 6, wherein said promoter functions in a specified cell or tissue type of said eukaryotic host.

8) The polynucleotide according to Claim 1, wherein said polynucleotide encodes an ancillary protein capable of expression in said host.

9) The polynucleotide according to Claim 8, wherein expression of said ancillary protein is capable of increasing the immunization reaction in said host elicited by said peptide or polypeptide.

10) The polynucleotide according to Claim 9, wherein said ancillary protein is chosen from the group consisting of GM-CSF and IL-1 beta.

11) The polynucleotide according to Claim 1, wherein said polynucleotide is coated with at least one nuclear targeting protein capable of targeting said polynucleotide to the cell nucleus in said eukaryotic host.

12) The polynucleotide according to Claim 11, wherein the at least one nuclear targeting protein is selected from the group consisting of histone H1, histone H2A, histone H2B, histone H3 and histone H4.

13) The polynucleotide according to Claim 1, wherein said polynucleotide is coated with at least one condensing protein capable of condensing said polynucleotide.

14) The polynucleotide according to Claim 13, wherein the at least one condensing protein is selected from the group consisting of histone H1, histone H2A, histone H2B, histone H3, histone H4 and mu protein of adenovirus.

15) The polynucleotide according to Claim 1, wherein said polynucleotide is coated with at least one protein capable of condensing said polynucleotide and targeting said polynucleotide to the cell nucleus.

16) The polynucleotide of Claim 15, wherein the at least one condensing and nuclear targeting protein is selected from the group consisting of histone H1, histone H2A, histone H2B, histone H3 and histone H4.

17) A method of constructing a polynucleotide capable of eliciting an immunization reaction in a host comprising inserting a sequence encoding a peptide or polypeptide into said polynucleotide wherein said polynucleotide comprises elements of a viral genome which is capable of rolling circle replication.

18) The method according to Claim 17, wherein said peptide or polypeptide is non-native to said eukaryotic host.

19) The method according to Claim 17, further comprising inserting an ancillary protein into said polynucleotide, wherein expression of said ancillary protein is capable of potentiating an immunization reaction in said host elicited by said peptide or polypeptide.

20) The method according to Claim 19, wherein said ancillary protein is selected from the group consisting of GM-CSF and IL-1 beta.

21) The method according to Claim 17, further comprising coating said polynucleotide with at least one nuclear targeting protein capable of targeting said polynucleotide to the cell nucleus in said eukaryotic host.

22) The method according to Claim 21, whereby the at least one targeting protein is selected from the group consisting of histone H1, histone H2A, histone H2B, histone H3 and histone H4.

23) The method according to Claim 17, further comprising coating said polynucleotide with at least one condensing protein capable of condensing said polynucleotide.

24) The method according to Claim 23, wherein the at least one condensing protein is selected from the group consisting of histone H1, histone H2A, histone H2B, histone H3, histone H4 and the mu protein of adenovirus.

25) The method according to Claim 17, further comprising coating said polynucleotide with at least one condensing and nuclear targeting protein capable of condensing said polynucleotide and targeting said polynucleotide to the cell nucleus.

26) The method according to Claim 25, wherein the at least one condensing and nuclear targeting protein is selected from the group consisting of histone H1, histone H2A, histone H2B, histone H3 and histone H4.

27) A method of immunizing a host comprising administering a composition comprising said polynucleotide of Claim 1 into said host.

28) The method according to Claim 27, wherein said polynucleotide encodes an ancillary protein capable of potentiating an immunization reaction in said host elicited by said peptide or polypeptide and is capable of expression of said ancillary protein in said host.

29) The method according to Claim 27, wherein said composition further comprises an adjuvant capable of increasing the immunization reaction in said host elicited by said peptide or polypeptide.